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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/917,874	07/31/2001	Yoshiaki Kuroki	Q65641	2065
7590 11/20/2003				
SUGHRUE MION ZINN MACPEAK & SEAS, PLLC			EXAMINER	
2100 Pennsylvania Avenue, NW			OLSEN, KAJ K	
Washington, DC 20037-3213			ART UNIT	PAPER NUMBER

1753

DATE MAILED: 11/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action	Application No. 09/917,874	Applicant(s) KUROKI ET AL.	
	Examiner Kaj Olsen	Art Unit 1753	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 30 October 2003 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
- ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
 - (b) ☐ they raise the issue of new matter (see Note below);
 - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____

3. ☐ Applicant's reply has overcome the following rejection(s): _____.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: see attached discussion.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____.

Claim(s) objected to: _____.

Claim(s) rejected: 1,3-12,14-20.

Claim(s) withdrawn from consideration: _____.

8. ☐ The proposed drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____.
10. ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. In response to the amendment where the claim language of claim 20 was added to claim 1, claims 1, 3-8, and 14-20 would be rejected as obvious utilizing the combination of Shibata, Mase, and Friese (with evidence from the Practical Handbook of Material Science) as set forth in paragraphs 2-5, 10, and 11 in the previous final rejection. Claims 1, 3-12, and 14-20 would be rejected as obvious utilizing the combination of Takahashi, Mase, and Friese (with evidence from the Practical Handbook of Material Science) as set forth in paragraphs 6-9, 12, and 13 in the previous final rejection.
2. The examiner points out that because the subject matter of claim 20 has been included in claim 1, claim 20 should now be canceled.

Response to Arguments

3. Applicant's arguments filed 10-31-2003 have been fully considered but they are not persuasive. Applicant urges that the rejection of claim 20 required a total of four references. However, one of those references is present merely for evidence so the rejection of claim 20 is obvious technically over the three other references. With respect to that number of references, a large number of references alone does not negate the obviousness of the combination of references when motivation has clearly been established for each particular use of the references (see *In re Gorman* 18 USPQ 2d 1885, 1889 (Fed. Cir. 1991); *In re Fridolph* 57 USPQ 122; and *In re Nelson* 176 USPQ 202).

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4. Applicant also urges that there is no recognition in Friese concerning the problem of warpage. That may be the case, but the motivation for the use of Friese came from the fact that adding ceramic components such as alumina to the electrolyte improved its coefficient of heat expansion and its thermal shock resistance (col. 3, lines 2-58). Applicant may have discovered a new reason for adding ceramic to the electrolyte (namely to reduce the incidence of warpage). However, that does not alter the conclusion that its use in a prior art device would be *prima facie* obvious from the purpose disclosed in the reference. Further, "since motivation to combine prior art references need not be identical to that of applicant in order to establish obviousness" *In re Kemps*, CAFC 40USPQ2d, (1996). It has been well established that a patent cannot be granted for the discovery of a result, even though it may be unexpected good, which would have flowed logically from the teaching of the prior art.

5. Applicant further urges that amended claim 1 is drawn to a very precise and specific definition of the multi-level gas sensor. Although that degree of specificity is debatable (the various claimed ranges of thickness, mean grain size, and percentage of ceramic component are all broadly defined), this does not obviate that all these claimed properties were either disclosed or rendered obvious by the set forth references in the final rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kaj Olsen whose telephone number is (703) 305-0506. The examiner can normally be reached on Monday through Thursday from 7:00 AM-4:30 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Mr. Nam Nguyen, can be reached at (703) 308-3322.

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When filing a fax in Group 1700, please indicate in the header "Official" for papers that are to be entered into the file, and "Unofficial" for draft documents and other communications with the PTO that are not for entry into the file of this application. This will expedite processing of your papers. The fax number for regular communications is (703) 305-3599 and the fax number for after-final communications is (703) 305-5408.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist, whose telephone number is (703) 308-0661.

A handwritten signature in black ink, appearing to read "Kaj K. Olsen", with a stylized flourish extending from the end.

Kaj K. Olsen
Patent Examiner

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November 18, 2003